

Catalogue of the Castniidae in the National Museum of Ireland - Natural History, Dublin, with general comments on the history of the collection (Insecta: Lepidoptera)

Jorge M. González & Aidan O'Hanlon

Abstract

The material representing 35 specimens with 21 species and a total of 24 taxa belonging to the Castniidae (Lepidoptera) deposited in the National Museum of Ireland - Natural History, Dublin, Ireland, was studied. A brief comment on the history of the Natural History Museum and the origin of this small collection of Neotropical and Australian species is provided. General comments on natural history, distribution and other details for each mentioned species and subspecies are also included.

Keywords: Insecta, Lepidoptera, Castniidae, Neotropics, Australia.

Catálogo de los Castniidae en el Museo Nacional de Irlanda - Historia Natural, Dublín, con comentarios generales sobre la historia de la colección (Insecta: Lepidoptera)

Resumen

Se ha estudiado el material representado por 35 ejemplares, pertenecientes a 21 especies y un total de 24 taxones de Castniidae (Lepidoptera) depositados en el Museo Nacional de Irlanda - Historia Natural, Dublín, Irlanda. Se ofrece un breve comentario sobre la historia del Museo de Historia Natural y el origen de esta pequeña colección de especies de Castniidae neotropicales y australianas. También se incluyen comentarios generales sobre la historia natural, la distribución y otros detalles de cada una de las especies y subespecies mencionadas.

Palabras clave: Insecta, Lepidoptera, Castniidae, Neotrópico, Australia.

Introduction

The Natural History Division of the National Museum of Ireland (NMI) cares for the national collections in the scientific disciplines of Zoology and Geology. The Museum's origin dates back to the mid-18th century collections of the Royal Dublin Society (RDS) which was formerly lodged in Leinster House. The Natural History Museum was built as an extension to Leinster House in 1856 to accommodate the expanding RDS collections. The Museum's collections were transferred into state ownership in 1877 as the Museum of Science and Art, Dublin and again in 1921 as the National Museum of Ireland (O'Riordan, 1983). Following the Anglo-Irish War (1919-1921) Leinster House was transformed into the site of the Oireachtas (Irish Parliament) in 1922. Meanwhile, the Natural History Museum, originally an annex to Leinster House, has remained largely unchanged since opening to the public 169 years ago. It stands today as an "intact example of a nineteenth-century natural science collection" (Adelman, 2005; Murphy, 2021; Gan & Low, 2024), often referred to in Ireland as a "museum of a museum". Stephen Jay Gould fondly described the Museum's

“cabinet-style” layout, calling it ‘quintessentially Victorian’ (Gould, 1994, 1995) (Figures 1.1 - 1.3).

Figure 1. Inside the National Museum of Ireland - Natural History, showing the typical Victorian arrangement of organisms, covering all available space. **1-3.** Galleries as seen from the upper floor. **2.** Two male giant Irish deer (center and right) and a female (left) (*Megaloceros giganteus*) at the entrance of the Irish Room, ground floor. **4-6.** Collection drawers showing the 35 Castniidae owned by the Museum as arranged during the late 1800s. **5.** William Forsell Kirby (1844-1912), assistant naturalist and curator to the Royal Dublin Society and Later to the Museum of Science and Art, precursors of the Natural History Museum.



Of the estimated two million specimens in the NMI Natural History Division's holdings, around 10,000 are on display, with the remainder maintained as a reference collection for scientific research. Approximately half of the Natural History collections consist of insects. The main area of active acquisition has been of Irish material, which consequently represents the majority of specimens in the museum. However, NMI also holds significant collections from beyond Ireland.

The entomology collection is particularly rich in Type material, and includes specimens from around the world, collected by famous naturalists like Johann Friedrich Gmelin (1748-1804), Charles Robert Darwin (1809-1882), Alfred Russell Wallace (1823-1913), and many other names familiar to modern taxonomists (Kirby, 1869; Monaghan, 2005).

Among its holdings are numerous South American Lepidoptera. Within the Castniidae, we were able to find 35 specimens in two drawers (Figures 1.4, 1.6). Thirty-three of them are Neotropical Castniinae, and two are Australian *Synemon* Doubleday, 1846 species. The number of specimens found in these two drawers coincides (with a couple of exceptions) with a catalogue of the Lepidoptera collection in the museum published by Kirby (1880). Unfortunately, most specimens lack any labels. Some of them appear to be quite old, possibly dating from the late 1700s and originating from the Leske collection. Nathanael Gottfried Leske (1751-1786) maintained an extensive cabinet of minerals and natural history, receiving specimens from European naturalists like Johann Friedrich Gmelin (1748-1804) (Kirby, 1869). The Royal Dublin Society acquired the Leskean Cabinet in 1792, later passing it to the Museum (Berry, 1915; Adelman, 2005).

Some labels bear numbers that might correspond to the Leske catalogue, but no definitive matches have been found (see Karsten, 1789; O'Reilly, 1813). Similarly, they do not align with William Forsell Kirby's catalogues. The Castniidae specimens were initially curated and arranged by British entomologist William Forsell Kirby (1844-1912) (Figure 1.5), who worked at the Museum from 1867 to 1879, with later additions by George Herbert Carpenter (1865-1939), another British entomologist employed there in the late 19th century. The arrangement has remained otherwise unchanged since the 1880s-1890s, aside from a few additions in the early 1900s.

Despite the absence of any provenance data from most of the Castniidae material, several specimens do

bear labels and collector names of interest. For instance, some originate from Edward Bartlett (1844-1908) and Colonel Henry “Harry” Joseph Kelsall (1867-1950). Bartlett, a British ornithologist and herpetologist, also collected insects in the Amazon Basin and Peru between 1865 and 1869 (Palmer, 1944; Lamas, 1981; Bauer & Das, 2024). Kelsall, an officer in the Royal Artillery, was stationed in various locations worldwide (Gan & Low, 2024). He donated collections to the Dublin Natural History Museum and live animals to the Dublin Zoo (Anonymous, 1911, 1912). Some specimens originate from English zoologist and entomologist Robert Henry Fernando Rippon (c.1836-1917), whose collections were dispersed across multiple museums (Kirk-Spriggs, 1995; Nelson, 2017). Additional specimens came to the Museum as part of a collection of 130 Lepidoptera specimens purchased from a Mr. H. Lincoln of Dublin.

Materials and methods

Thirty-five specimens were found in two museum drawers. They belong to 21 species and represent 24 different taxa. This annotated list was organized roughly following the taxonomic arrangements of Moraes & Duarte (2009, 2014) (for Castniinae: Castniini) (with some exceptions) and Edwards (1996) (for Castniinae: Synemonini). The genera have been ordered phylogenetically, loosely following Lamas (1995) and Miller (1995). Species are organized alphabetically. For practical reasons, we also consider the separation of the several specimens into three subtribes.

Each species is presented with a brief comment. The “Material examined” section contains the sex of every studied specimen, as well as the data contained in its labels. Comments, additions, or corrections are added within brackets.

Results and discussion

ANNOTATED LIST OF SPECIES AND LABEL INFORMATION OF EXAMINED SPECIMENS OF CASTNIIDAE HOSTED IN THE INSECT COLLECTION OF THE NATIONAL MUSEUM OF IRELAND - NATURAL HISTORY, DUBLIN

CASTNIIDAE Blanchard, 1840

CASTNIINAE Blanchard, 1840

CASTNIINI Blanchard, 1840

Lapaeumides ctesiphon (Hübner, [1820]) (Figure 2.1)

Eupalamides ctesiphon Hübner, [1820]. *Samml. exot. Schmett.*, 2, pl. [141]

A large, beautiful and very rare species, with not many specimens in collections worldwide, most of which are quite old (Miller, 1986). The species is restricted to southern Brazil (Miller, 1986). It is probably associated with lowland tropical forest, but other than that, nothing is known about its biology (Miller 1986). This species and the next one (*L. zerynthia*) were listed under *Synpalamides* Hübner, [1823] by Moraes & Duarte (2014), we are placing them back in *Lapaeumides* Oiticica, 1955 out of convenience. Both species are very close morphologically and have almost identical and unique wings that differ from typical *Synpalamides*, allowing us to place them together back in the genus *Lapaeumides*. They are the only taxa within the latter genus, and they are both possibly extinct (see Lamas, 1995; Miller, 1986, 1995).

Material examined: 1 ♂, *Castnia latreilli*, [sic.] Brazil, [“279” label of unknown meaning].

Lapaeumides zerynthia (Gray, 1838) (Figure 2.2)

Castnia zerynthia Gray, 1838. *Trans. ent. Soc. Lond.*, 2, 144

The species appears to be restricted to Southeast Brazil, but some old classic authors have mentioned its presence in Bolivia (Westwood, 1877; Strand, 1913; Houlbert, 1918). Despite being a large and showy species, it is rare and poorly represented in collections, probably because local population numbers are very low, or possibly extinct (Miller 1986). As in the case of *L. ctesiphon* (Hübner, [1820]), all known specimens are quite old (Miller 1986). Nothing is known about its biology (Miller, 1986; González et al. 2010).

Material examined: 1 ♂, no data. [Brazil?].

Hista fabricii (Swainson, 1823) (Figure 2.5)

Castnia fabricii Swainson, 1823. *Zool. Illustr.*, (1)3, pl. 149

A common species in southeastern Brazil, however very little is known about its biology (Moraes et al. 2010). The phenotypic variability of the species is quite remarkable, allowing Moraes et al. (2010) to synonymize up to ten names under the one described by Swainson (1823). Its larvae have been found feeding on *Tillandsia aeranthos* (Loisel.) L. B. Sm. (Bromeliaceae) (Biezanko, 1961; González & Stünig, 2007; Moraes et al. 2010). Miller (1986) stated that the species could pupate on the ground or among grass at the base of trees where the host plant is located.

This species and the following (*H. hegemon* (Kollar, 1839)) were originally placed in the genus *Hista* (see Lamas, 1995; Miller, 1995; Moraes et al. 2010) but later, Moraes & Duarte (2014) synonymized them under *Synpalamides*. However, the close phylogenetic relationship of *Synpalamides* and *Hista* seems to be quite doubtful (R. Worthy, pers. comm.). Thus, we prefer to keep this and the following species under *Hista* Oiticica, 1955.

Material examined: 1 ♂, Brazil.

Hista hegemon (Kollar, 1839)

Castnia hegemon Kollar, 1839. *Ann. wien. Mus. Naturg.*, 2 (2), 217, pl. 13, f. 2

The species has been found in south and southeastern Brazil, with records for the states of Espírito Santo, Rio de Janeiro, São Paulo, and Santa Catarina (Moraes et al. 2010). It is a sexually dimorphic species, with the very rare females larger than males, and both sexes having different color pattern on the discal cell region of the hindwing (Moraes et al. 2010). Unfortunately, almost nothing is known about its behavior and ecology (Moraes et al. 2010; Rodríguez-Ramírez et al. 2020). Miller (1986) reported that it has been observed flying around trees similarly to various Sphingidae and that it flies between 11:30 and 13:00 hours, overlapping in activity with the sympatric *H. fabricii*. Both species are closely associated. Even though Moraes et al. (2010) kept them both in the genus *Hista* (following Lamas, 1995, and Miller, 1995), Moraes & Duarte (2014) synonymized the genus under *Synpalamides*. Curiously, Moraes & Duarte (2014) noted that the wing pattern of *S. hegemon* is very similar to that of *Lapaeumides zerynthia*. Also, *Lapaeumides* and *Hista* might be closer to each other than *Hista* and *Synpalamides*. Thus, we keep this and the previous species within the genus *Hista*.

Material examined: 1 ♂, no data [Brazil?].

Yagra fonscolombe (Godart, [1824])

Castnia fonscolombe Godart, [1824]. *Encycl. method.*, 9(2), 799

One of the few species in the family, with long series found in several collections worldwide (Moraes et al. 2011). The species is known from southeastern Brazil and Northeastern Argentina, and suspected to be in Paraguay, at least close to the border areas with the above-mentioned countries (Penco, 2011; Ríos & González, 2011; Rodríguez-Ramírez et al. 2020). Both sexes are represented in the museum, allowing them to appreciate their sexual dimorphism. Females are larger than males and have few creamy spots along the submarginal region as well as in the discal cell on their forewings, also the submarginal band of the hind wings has more spots than in males (Moraes et al. 2011).

Material examined: 1 ♂, ["99" label of unknown meaning] [Brazil?]; 1 ♂, no data [Brazil?].

Imara pallasia (Eschscholtz, 1821)

Castnia pallasia Eschscholtz, 1821, in Kotzebue. *Entdeck. Reise Süd-See*, 3(App. 5), 217, pl. 6, f. 27

A species of cloud forest ecosystems from southeastern Brazil where it lives sympatrically with the congeneric *I. satrapes* (Kollar, 1839) (González & Stünig, 2007; González et al. 2010, 2013b). According to Miller (1986) the species appears to be a visual mimic of *Parides ascanius* (Cramer, 1775) (Papilionidae). She also reported the species hilltopping with some *Morpho* spp. (Nymphalidae) (Miller, 1986).

Material examined: 1 ♂, no data, [Brazil?]; 1 ♂, Brazil.

Synpalamides amycus (Cramer, [1779])

Papilio amycus Cramer, [1779]. *Uitl. Kapellen*, 3(17-21), 60, pl. 227, f. D, E;

A highly variable and relatively common species in eastern Brazil, but has been reported also from Argentina, Uruguay, Venezuela, Guyana, and Trinidad & Tobago (Miller, 1986; González & Fernández-Yépez, 1993, 2010; González, 1999; Sandoval et al. 2008; Penco, 2011). Even though nothing is known about its biology, it is possible that the species is associated to bromeliads (Bromeliaceae) (González & Cock, 2004).

Material examined: 1 ♂, no data. [Brazil?].

Synpalamides orestes (Walker, 1854) (Figure 2.3)

Castnia orestes Walker, 1854. *List Spec. Lepid. Insects Colln Br. Mus.*, 1, 26

A species commonly found in southeastern Brazil, but it is not as common in collections worldwide (González et al. 2010, Miller, 1986). A specimen is known in the Natural History Museum, London (NHMUK), from Johann Joseph Maria Becker's (1788-1859) collection, and was supposedly collected in "Venezuela" (Houlbert 1918). However, such locality is improbable, and the specimen might have been mislabeled (González et al. 2010).

Material examined: 1 ♂, Brzl [Brazil].

Synpalamides phalaris (Fabricius, 1793)

Papilio phalaris Fabricius, 1793. *Ent. Syst.*, 3(1), 45

This highly variable species was originally described from Brazil, but it is known from most of South America, including Venezuela, Trinidad, Paraguay, Uruguay, Bolivia and Argentina (Miller, 1986; González & Cock, 2004; González & Stünig, 2007; González et al. 2010, 2013a; Penco, 2011; Ríos & González, 2011; González & Worthy, 2017). Little is known about its natural history, but females have been observed depositing their eggs on bromeliads in the genera *Guzmania* Ruiz & Pav. and *Bromelia* L. (Bromeliaceae) (Miller, 1986; González & Worthy, 2017). Adults have been observed flying around *Bromelia balansae* Mez and *Pseudananas sagenarius* (Arruda) Camargo and have been associated with pineapple crops (*Ananas* sp.) (Bromeliaceae) and bananas (*Musa* spp., Musaceae) (Jørgensen, 1930; Penco, 2011; Ríos & González, 2011).

Material examined: 1 ♂, no data; 1 ♂, S. [South] America. [Brazil?].

Castnia invaria penelope Schaufuss, 1870

Castnia penelope Schaufuss, 1870. *Nunq. Otios.*, 1(1), 9, pl. 1

This is a variable species commonly associated with wild and ornamental Bromeliaceae and is considered a minor pest of pineapple (*Ananas comosus* (L.) Merr., Bromeliaceae) throughout most of its distribution (Miller 1986; González & Fernández-Yépez 1993; González, 2003; González & Cock 2004). This subspecies is present in Brazil, south of the Amazon, Argentina, Paraguay and Bolivia (Lamas, 1995; Penco, 2011; Ríos & González, 2011; Rodríguez-Ramírez et al. 2020). Its coloration is highly variable throughout its distribution area, which is reflected in the existence of a high number of synonyms (Lamas, 1995). The specimen in the museum is not well spread and its wing margins were cut. It differs from two specimens of *C. invaria trinitatis* (Lathy, 1925) also preserved in the museum (see below).

Material examined: 1 ♂, no data, [Brazil?].

Castnia invaria trinitatis Lathy, 1925 (Figure 2.4)

Castnia icarus trinitatis Lathy, 1925. *Ann. Mag. nat. Hist.*, (9)16, 242-243

This subspecies is only found in Trinidad and Tobago, where it seems to be rare (González & Cock, 2004; Cock et al. 2024). Lathy (1925) named the subspecies based on slightly variant color patterns different "from the typical form ... and ... resembling the race *penelope*, ... and ... having hindwing above as typical *icarus* ..." Even though only one of these specimens (the female) in the museum was labelled, they both fit

Lathy's description. Also, since the male was mounted together with the female, it is possible that they were collected at the same time and place.

Material examined: 1 ♂, no data [Trinidad & Tobago?]; 1 ♂, Trinidad, Coll. Kelsall, (NMINH:1902.313) [Trinidad & Tobago].

Telchin atymnius drucei (Schaus, 1911) (Figure 2.6)

Castnia drucei Schaus, 1911. *Ann. Mag. nat. Hist.*, (8)7(38), 191

A typical Central American subspecies originally described from Costa Rica (as *Castnia drucei*) based on males and females from four different locations in the Country (Schaus, 1911; González, 2024; García et al. 2024). The species has been reported from Brazil, Colombia, Panama and Costa Rica; however, the South American records might be related to similar and very reddish *drucei*-like specimens of *Telchin atymnius humboldti* (Boisduval, [1875]), or incorrect labeling (García et al. 2024). For certain, the subspecies is found in the Pacific slope of the country, and in northern Panama, and might even reach northwestern South America and, as far as we know, it has not been recorded from other central American countries north of Costa Rica (González & Salazar, 2003; González et al. 2010; González & Domagala, 2019; Van den Bergh et al. 2020; Maes & González, 2022; García et al. 2024). The larvae of this subspecies are known to feed on various species of *Heliconia* plants (Heliconiaceae) and is regarded as a pest of sugarcane (*Saccharum officinarum*, Poaceae) (Salazar-Blanco et al. 2018; Cadet-Piedra et al. 2019; García et al. 2024).

Material examined: 1 ♂, Costa Rica.

Telchin atymnius humboldti (Boisduval, [1875])

Castnia humboldti Boisduval, [1875]. *Hist. nat. Ins., Spec. gén. Lépid. Hétérocères*, 1, 528

A subspecies commonly found in parts of northern South America, in Colombia, and Venezuela (Miller 1986; Constantino, 1998; Salazar, 1999). Like other subspecies in the species, it is frequently associated with bananas (*Musa* spp., Musaceae) and heliconia plants (*Heliconia* spp.: Heliconiaceae) (Miller, 1986; Constantino, 1998).

Material examined: 1 ♂, Colombia.

Telchin evalthe (Fabricius, 1775)

Papilio evalthe Fabricius, 1775. *Syst. Ent.*, 480

This species is widely distributed from southern Mexico to southern Brazil (Miller, 1986). It appears that the species could be associated with bromeliads (Bromeliaceae) or heliconia plants (*Heliconia* spp., Heliconiaceae), based mainly on potential host plants in areas where the species has been collected (Moss, 1945; Miller, 1986; González & Cock, 2004; González et al. 2010, 2017; González & Domagala, 2019; Aya et al. 2022; García-Díaz, 2023; García-Díaz et al. 2024). Several subspecies have been described; however, the species deserves a thorough morphological and molecular review to clarify its taxonomy. The specimen in the museum is a female; it resembles *T. evalthe quadrata* (Rothschild, 1919) described from Peru and Ecuador, which differs slightly from other subspecies (Rothschild, 1919; Lamas, 1995; González & Domagala, 2021).

Material examined: 1 ♂, Coll. By E. [Edward] Barlett, Chyavitas [Chayahuitas, 316 m, 05°25'S, 76°50'W], 1866, Peruvian Amazons, *Castnia Evalthe*. Loreto, [Peru].

Telchin licus (Drury, 1773)

Papilio licus Drury, 1773. *Illust. Nat. Hist. Exot. Insects*, 2, 30, pl. 16, f. 1

An extremely common and highly variable species throughout its distribution in Central and South America, where several subspecies are known (Miller, 1986; Rodríguez-Ramírez et al. 2020). Several of its subspecies have been reported as pests of relevant crops and ornamentals such as sugarcane (*Saccharum officinarum* L., Poaceae), bananas and plantains (*Musa* spp., Musaceae) and heliconia plants (Heliconiaceae) (González & Fernández-Yépez, 1993; González & Stüning, 2007; González et al. 2013a; Silva-Brandão et al. 2013; Aya et al. 2022). Although some subspecies present in Brazil and Colombia have been distinguished

through molecular studies, the taxonomy of the species is still unclear (González & Cock, 2004; González et al. 2010; Silva-Brandão et al. 2013; Aya et al. 2022).

Material examined: 1 ♂, Rippon, Bogota. *Castnia licus*, Bogota, For Bengal Society, [Colombia]

Telchin licus insularis (Houlbert, 1918) (Figures 2.7 & 2.8)

Castnia licoides f. *insularis* Houlbert, 1918. *Etud. Lépid. Comp.*, 15, 235

Individuals of this subspecies are “the most common and widespread castniids in Trinidad” according to González & Cock (2004). Known as the giant moth borer or large moth borer, it is an important pest of sugarcane, *Saccharum officinarum* L. (Poaceae) (Urich, 1912; Wolcott, 1913; Myers, 1931; Cock, 1985). However, this subspecies is known to attack *Heliconia* plants (Heliconiaceae), as well as bananas (Musaceae) and possibly other monocots (Myers, 1932; González & Cock, 2004).

Material examined: 1 ♂, Trinidad, Prevost [Trinidad & Tobago]; 1 ♂, Trinidad [Trinidad & Tobago]; 2 ♂, 1 ♀, Trinidad, Coll. Kelsall., (NMINH:1902.313) [Trinidad & Tobago].

Telchin syphax (Fabricius, 1775)

Papilio syphax Fabricius, 1775. *Syst. Ent.*, 480

The species is widely distributed in southern Venezuela, Trinidad, the Guianas and lower Amazon, in Brazil (González, 1999; González & Cock, 2004; González et al. 2010, 2013a). However, although many specimens are known and exist in numerous private and institutional collections, very little is known about its biology (Miller, 1986; González, 1999; González & Cock, 2004; González et al. 2010, 2013a).

Material examined: 1 ♂, no data [Brazil?]

Geyeria decussata (Godart, [1824])

Castnia decussata Godart, [1824]. *Encycl. Méthod.*, 9(2), 799

This is a highly variable species which led several authors to consider them as different subspecies depending on the place of collection within a geographic range in eastern Brazil, from at least PERNANBUCO to RIO GRANDE DO SUL (Miller, 1986; Lamas, 1995).

Some adults are known to feed on the nectar of flowers of *Aechmea nudicaulis* Griseb. (Bromeliaceae), and larvae have been found in the bromeliad *Wittrockia superba* Lindman, in Santa Catarina Island, Brazil (Albertoni et al. 2012).

Material examined: 1 ♂, *Castnia decussata*, Brazil.

GAZERINI Houlbert, 1918

Ceretes marcelserres (Godart, [1824])

Castnia marcel-serres Godart, [1824]. *Encycl. Méthod.*, 9(2), 800

This species has a marked sexual dimorphism, a characteristic shared with the other species in the genus, *C. thais* (Drury, 1782), and quite unique in the family (Miller, 1986; Moraes & Duarte, 2014; Ríos et al. 2015). It is widely distributed in middle-south South America including East Bolivia, Southeast Brazil, Mid-East Paraguay and North-East Argentina (Penco 2011; Ríos & González, 2011; Ríos-Díaz et al. 2015). Jörgensen (1930) reported larvae of the species feeding on *Miltonia flavescentes* Lindl. (Orchidaceae), which is abundant in the region where *C. marcelserres* flies in Paraguay (Ríos-Díaz et al. 2015).

Material examined: 1 ♂, S. [South] America, [Brazil?].

Ceretes thais (Drury, 1782) (Figure 2.9)

Papilio thais Drury, 1782. *Illust. Nat. Hist. Exot. Insects*, 3, 21, index [1], pl. 16, f. 4

Distributed in southern Brazil, reaching Bolivia and Argentina (Miller, 1986; Ríos & González, 2011). As in *C. marcelserres*, this species exhibits a striking sex dimorphism (González et al. 2010; González & Domagala, 2019). The ground color of the forewings is slightly similar in males and females, but paler

with reduced markings in the latter. The ground-color of the female hindwings is orange-fulvous with two postmedian bands that are very dark, black, with an additional extradiscal spot band (Miller, 1986; González et al. 2010; Ríos & González, 2011). The hindwings of the males are colorful (blue-purple, with an orange band at the apex of the costal margin, extending to near the middle of the external margin. A yellow-orange spot is at the costal margin, without touching it, and stands alone, before the beginning of the orange band.

Material examined: 1 ♂, Brazil; 1 ♂, *Castnia thais*, [Brazil?].

Gazera heliconioides obidonus (Rothschild, 1919) (Figure 2.10)

Castnia (Cabirus) linus obidonus Rothschild, 1919. *Novit. Zool.*, 26(1), 24

We keep this and the following taxon under the genera assigned by Lamas (1995) and Miller (1986, 1995), since we do not see them clearly matching the genus *Prometheus* Hübner, [1824] to which they were assigned by Moraes & Duarte (2014) (Worthy & González, in prep.). The subspecies of *G. heliconioides* are several and too similar, but this subspecies might be distinguished from others by its size and the hindwing submarginal spots (Rothschild, 1919; Miller, 1986)

Material examined: 1 ♂, Coll. by E. [Edward] Barlett, Ucayali [Lower River Ucayali, Loreto; either the mouth of the river, 04°26'S, 73°27'W, 110 m; or close to Nauta, 04°30'S, 73°35'W], 1865. Peruvian Amazons, *Castnia linus*, [Peru].

Duboisvalia ecuadoria pellonia (H. Druce, 1890)

Castnia pellonia Druce, 1890. *Ent. mon. Mag.*, 2(310), 7

As in the previous taxon, we keep this subspecies under the genus assigned by Lamas (1995) and Miller (1995). Most representatives within this genus mimic *Heliconius* butterflies (Nymphalidae) (Miller, 1986). This taxon was originally designated as the type species of *Duboisvalia* Oiticica, 1955 and probably would be reinstated as a valid species (Miller 1986; Worthy & González, in prep.).

Material examined: 1 ♂, no data [Ecuador?]

SYNEMONINI Common, 1990

Synemon laeta Walker, 1854 (Figure 2.12)

Synemon laeta Walker, 1854. *Cat. Lep. Het. Brit. Mus*, 1, 36

An interesting Australian species with a wide distribution in Australia (Murphy, 2015, 2020). It is known to feed inside the culm of the Asparagaceae species *Lomandra longifolia* Labill. instead of the roots of their host as other species in this genus. It is a common species in its area of distribution (Guest, 1882).

Material examined: 1 ♂, 906 [original auctioneers' number?], (NMINI:1897.7.21.33) [Australia]

Synemon theresa Doubleday, 1846 (Figure 2.11)

Synemon theresa Doubleday, 1846, in Stokes. *Discov. Australia Append.*, 1, 517, pl. 3, f. 6

Found in Victoria and South Australia, it is critically endangered, possibly extirpated in some areas, due to urban expansion, and the proliferation of exotic grasses and weeds (Douglas & Marriott, 2003; Marriott, 2003; Young & Hunt, 2005; Douglas, 2008). Their larvae feed amongst the roots of *Rytidosperma racemosum* (R. Br.) H. OP. Linder or *R. caespitosum* (Gaudich.) Connor & Edgar (Poaceae) and females have been observed laying eggs on *Themeda triandra* Forssk. (Poaceae) (Young & Hunt, 2005; Douglas, 2008). Adults lack feeding proboscis and last only for a few days living off body fat acquired as larvae (Douglas, 2008).

Material examined: 1 ♂, 906 [original auctioneer's number?], (NMINI:1897.7.21.17) [Australia]

Acknowledgements

We are greatly indebted to Robert ("Bob") Worthy (Caterham, Surrey, UK), Matthew Cock (CABI, Egham, Surrey, UK) and Dr Gerardo Lamas (Museo de Historia Natural, Universidad Nacional Mayor de

San Marcos, Peru), for providing us information on localities and taxa, allowing us to improve the original manuscript.

Conflict of Interest

The authors declare that they have no known financial interest or personal relationship that could have influenced the work presented in this article.

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*Jorge M. González
Austin Achieve Public Schools
Austin, Texas
(Research Associate, McGuire Center for Lepidoptera and Biodiversity)
EE. UU. / USA
E-mail: gonzalez.jorge.m@gmail.com
<https://orcid.org/0000-0001-7208-7166>

Aidan O'Hanlon
National Museum of Ireland
Natural History Merrion Street
Dublin
IRLANDA / IRELAND
E-mail: aohanlon@museum.ie
<https://orcid.org/0000-0002-8193-6630>

*Autor para la correspondencia / *Corresponding author*

(Recibido para publicación / *Received for publication* 14-II-2025)
(Revisado y aceptado / *Revised and accepted* 30-V-2025)
(Publicado / *Published* 30-VI-2026)

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Figure 2. Castniidae (Lepidoptera) from the Insect Collection of the National Museum of Ireland - Natural History. **1.** *Lapaumides ctesiphon*, ♂, Brazil. **2.** *Lapaumides zerinthia*, ♂, Brazil. **3.** *Synpalamides orestes*, ♂, Brazil. **4.** *Castnia invaria trinitatis*, ♂, Trinidad & Tobago. **5.** *Hista fabricii*, ♂, Brazil. **6.** *Telchin atymnius drucei*, ♂, Costa Rica. **7-8.** *Telchin licus insularis*, ♂ and ♂, Trinidad & Tobago. **9.** *Ceretes thais*, ♂, Brazil. **10.** *Gazera heliconioides obidona*, ♂, Peru. **11.** *Synemon theresa*, ♂, Australia. **12.** *Synemon laeta*, ♂, Australia. Scale 1 cm.

